

ABSTRACT  
UNACTIVATED OOCYTES AS CYTOPLAST RECIPIENTS  
FOR NUCLEAR TRANSFER

5      A method of reconstituting an animal embryo involves  
transferring a diploid nucleus into an oocyte which is  
arrested in the metaphase of the second meiotic division.  
The oocyte is not activated at the time of transfer, so  
that the donor nucleus is kept exposed to the recipient  
10      cytoplasm for a period of time. The diploid nucleus can  
be donated by a cell in either the G0 or G1 phase of the  
cell cycle at the time of transfer. Subsequently, the  
reconstituted embryo is activated. Correct ploidy is  
maintained during activation, for example, by incubating  
15      the reconstituted embryo in the presence of a microtubule  
inhibitor such as nocodazole. The reconstituted embryo  
may then give rise to one or more live animal births.  
The invention is useful in the production of transgenic  
animals as well as non-transgenics of high genetic merit.

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